

The Accuracy of Recalled Previous Voting: Evidence from Norwegian Election Study Panels

Ragnar Waldahl and Bernt Aardal*

Data on individual variations from one election to the next is fundamental in the study of political behaviour, and should, ideally, be collected through panel studies in which the same people are interviewed at two or more elections. This method is, however, costly and time consuming, and most analyses of this type are therefore based on recall data, in which the voters report their choices in the current election and also in previous elections. The accuracy of recall data is discussed, based on data from the Norwegian Programme of Election Research in the period 1977–97. Analyses show that one must expect, using this type of data, that about one in four voters will give incorrect information about their voting behaviour at the previous election. Erroneous recall of previous voting can be explained by variations in the voters' affiliation to the parties. Whereas stable voters who remain with the same party normally report their voting correctly, erroneous recall varies around 40 percent for party changers and rises to 70 percent among previous non-voters. There is, however, no uniform underlying pattern in erroneous recall during different periods, which implies that it is difficult to predict exactly how erroneous recall will affect the accuracy of recall data in one particular election.

Introduction

Changes in voting behaviour represent an intriguing field of study where the need for data on individual variations from one election to the next is fundamental. Ideally, such data should be collected through panel studies in which the same people are interviewed at two or more elections. This method is, however, costly and time consuming, and is therefore rarely used. Most analyses of this type, therefore, are based on data in which the voters report their choices in the current election and also in previous elections. Research from many countries, our own from Norway in the 1960s included, shows, however, that many people give incorrect information about their previous voting (Weir 1975; Van der Eijk & Niemöller 1978; Himmelweit et al. 1978; Waldahl & Aardal, 1982, 1995; Granberg &

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Introduction

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Holmberg 1986). This means that the validity of recall data is rather low, and we argue that dependence on human recollection of previous voting behaviour gives inaccurate results.

Earlier research on the accuracy of recall data has shown that:

- Voting stability is crucial for the quality of recall data. Voters who change their voting behaviour from one election to the next are much more liable to report erroneously on their voting than voters who behave consistently at both elections.
- Social background, political interest, and party identification are of little or no significance for voters' erroneous recall.

Since the completion of our former study of this problem there has been increasing individual mobility between the parties in many Western countries. In Norway the percentage of the voters who have changed party from one election to the next has increased from about 25 percent in the 1960s, to about 30 percent in the 1970s and the first half of the 1980s, and to more than 40 percent in the 1990s. With this increasing volatility in the electorate, it is reasonable to expect that the quality of recall data is decreasing, and our first question in this article is:

- How is the extent of erroneous recall changing in a period of increasing voting volatility?

Information on people's earlier voting behaviour is today used to a great extent by commercial opinion pollsters in many countries to correct for bias in their samples (Dalen 1981; Hellevik 1989). This procedure may weaken the quality of their results, and our second question is:

- What will be the possible consequences of using recall data as an indicator of voting patterns?

Our analyses of these two questions is based on data from surveys by the Norwegian Programme of Election Research from all parliamentary (Storting) elections in the period 1977–97 (Valen & Aardal 1994).

How to Explain Erroneous Recall

Earlier research on this issue and general knowledge of human behaviour give three main explanatory perspectives for erroneous recall of previous voting.

First a consistency perspective, showing that people have a conscious or subconscious wish to act in accordance with earlier behaviour (Eagly & Chaiken 1993, 455–78). According to this perspective, the voters tend to report that they voted for the same party in the previous election as in the

present one. The explanation may be that they are dissatisfied with their previous voting and wish to forget about it. However, it can also be that they wish to show that their present attitude is consistent. This is especially so among voters who have changed their voting behaviour since the previous election, and the result is a higher level of erroneous recall among unstable than among stable voters. The increasing level of party shifts from one election to the next may, however, have affected the individual psychological need to appear consistent in this group of voters (Aardal 1999).

Second a memory perspective, showing that erroneous recall is a consequence of the lack of ability to remember, or of interest in remembering, previous behaviour. A lot of voters have low interest in politics, little knowledge about political matters, and no affiliation to any political party. Quite a few of these voters postpone their voting decision to a few days before election day, and their choices may be of little importance to them. It is, however, easier to remember correctly when there has been no change in one's voting behaviour, and erroneous recall will, according to this perspective, be more frequent among unstable voters than among stable voters.

Third a citizen's duty perspective, showing that many voters feel obliged to take part in elections in order to act as a responsible citizen and to contribute to maintaining the legitimacy of the political system (Hernes & Martinussen 1980; Aldrich 1993). This perspective naturally occurs more often as an explanation among voters who did not vote in the previous election. Admittedly the political involvement of such voters is often low, but voting is recognised as an important civic duty by most people in Western democracies. It is, therefore, reasonable to think that many non-voters feel that there is a positive value in voting and want to create an image of responsibility by saying that they voted in the last election.

An additional complication when comparing party choice and individual turnout in parliamentary elections in Norway are the intermediate province and municipal elections, which take place at the same date midway between parliamentary elections. This contextual macro factor obviously supplements the above mentioned individual (micro) explanations. Hence, recall of previous voting in parliamentary elections may be contaminated by the individual's voting in the preceding local elections. This makes the use of recall data more complicated in Norway than in countries where all elections take place at the same time. An evaluation of what this Norwegian particularity means for the amount of erroneous recall will thus throw some additional light on the quality of recall data.

Data and Methods

The Norwegian Programme of Electoral Research interviewed a representa-

tive sample of Norwegian voters at all parliamentary elections in the period 1977–97 (Valen & Aardal 1994). The interviews were conducted during a four-week period after the elections, which take place in the first half of September. The surveys were organised as a rolling panel in which nearly half of the respondents in one election were also interviewed at the subsequent election, so that about half of the sample was replaced at each election.

The response rate in the five panels varied between 75.7 percent and 80.1 percent.¹ This is 3–4 percentage points higher than among those who were contacted for the first time (Stortingsvalget 1981, 1985; Valen et al. 1990; Aardal et al. 1995, 1999).

In all elections, the respondents reported their party choice and individual turnout in the current election and in the previous parliamentary election. The respondent's answer on this question was checked against the official census list, which shows whether the person actually voted. All incorrect information is corrected, which means that our data on whether or not people voted is reliable and accurate. Thus, we have two independent reports of the respondents' party choice and individual turnout at each election: one answer given immediately after the election and one given four years later. A comparison of these two answers shows the extent to which we can trust the latter (the recall data), provided the former is correct. This may of course not be the case, but it is reasonable to suppose that it is (Granberg & Holmberg 1988, 198).

Voting requires two decisions: whether one is going to vote or not, and if one is, for which party. These are two different questions involving different mental processes. It is, however, impossible in a discussion of recall data to separate the two questions. The accuracy of the data is influenced both by voters who say that they voted for another party at the previous election than the one they really voted for, and by voters who make an incorrect statement about voting or not. Excluding one of the two decisions from the analysis will give an incomplete picture of the accuracy of recall data. This means that there will be altogether five different relevant voting patterns in two consecutive parliamentary elections, and our analysis will include the following five groups of voters:

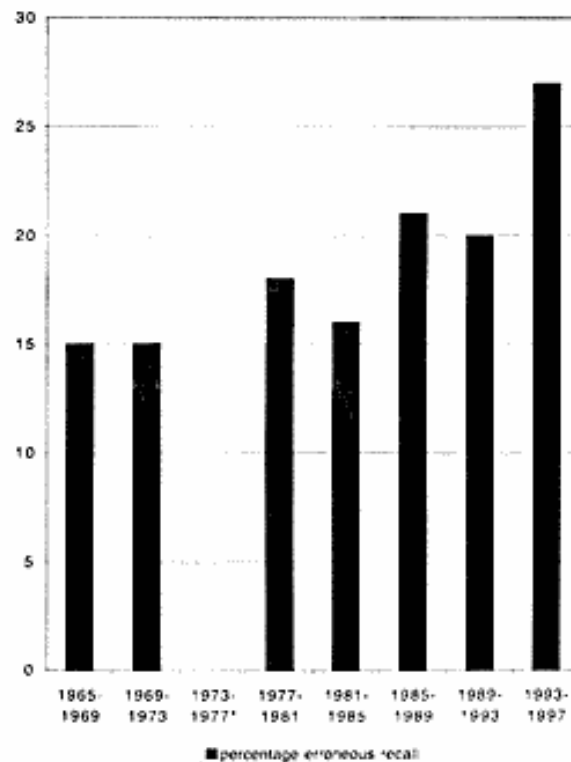
- Stable voters: those who voted for the same party in both elections.
- Party changers: those who voted for different parties in the two elections.
- Previous non-voters: those who did not vote in the first election, but did in the second.
- Present non-voters: those who voted in the first election, but not in the second.
- Stable non-voters: those who did not vote in either of the elections.

Erroneous Recall and Voter Stability

As shown in Figure 1, there was 15 percent erroneous recall of previous voting in the Norwegian electorate in the two election periods we studied around 1970 (Waldahl & Aardal 1982).² This percentage increased slightly during the four election periods between 1977 and 1993, and then jumped to nearly 30 percent in the last period.

Party loyalty among Norwegian voters has decreased noticeably between 1977 and 1997, and more people change party from one election to the next now than 20 years ago (Aardal & Valen 1995; Aardal 1999). Knowing that erroneous recall occurs more often among unstable voters than among stable ones, one would expect erroneous recall to have increased more in this period than is shown in Figure 2. It is difficult to explain that erroneous recall remained more or less stable at around 20 percent in the period between 1977 and 1993, when the stability of the voters dropped from about 70 percent to below 60 percent, and then increased by more than five percentage points between 1993 and 1997, when there was no change in voter volatility. One explanation may, however, be the EU referendum held in 1994 (Jenssen et al. 1998). The EU question put many voters under

Figure 1. Percentage of Erroneous Recall, 1965-97.



* we have no data for this election period.

Figure 2. Percentage of Accurate Recall and Percentage of Stable Voters.

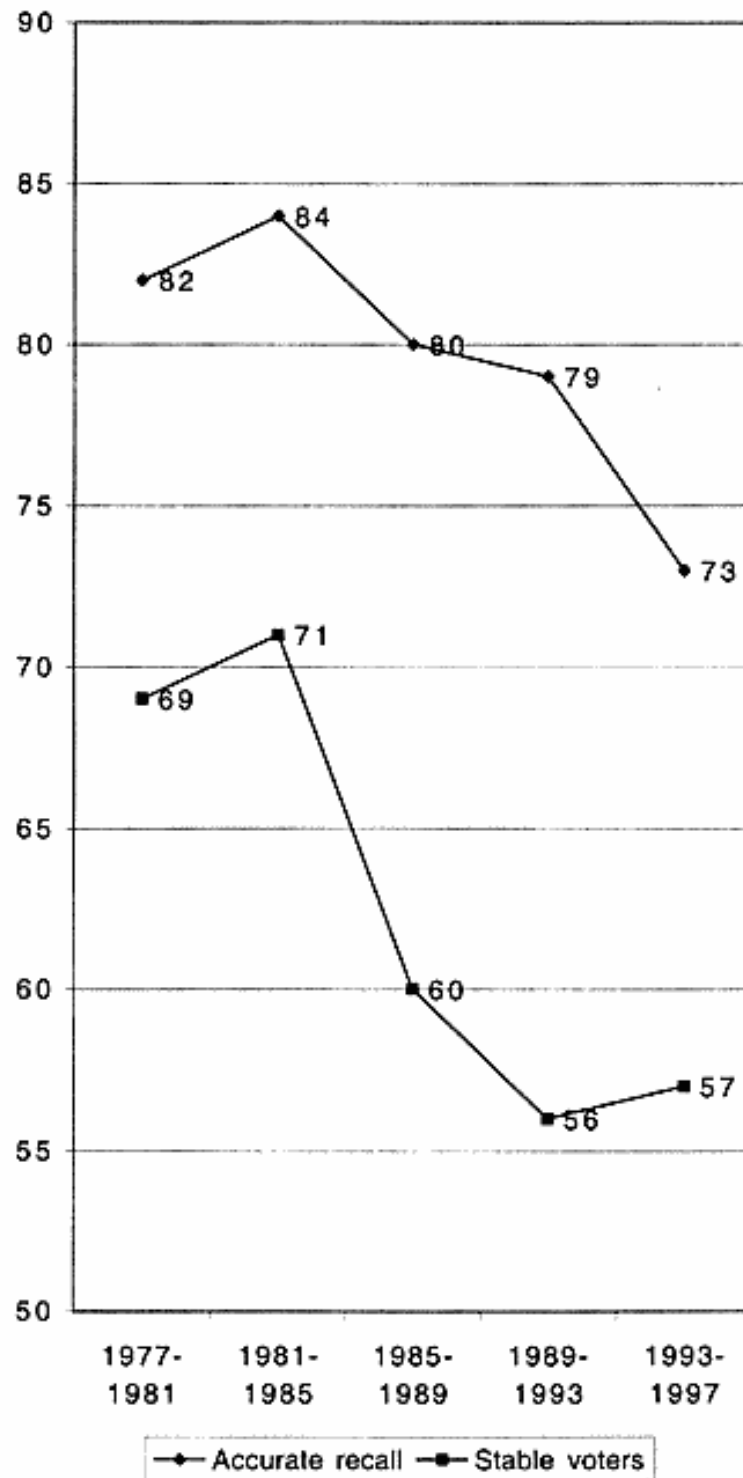


Table 1. Percentage of Respondents Who Erroneously Recall Their Choice at the Previous Parliamentary Election, by Period and Type of Voter

	Stable voters	Party changers	Previous non-voters	Present non-voters	Stable non-voters	All voters
1977-81	5	44	57	22	29	18
1981-85	3	42	57	23	32	16
1985-89	5	37	68	26	39	20
1989-93	7	34	67	22	34	21
1993-97	7	39	75	35	67	27
<i>N</i>	362-492	90-215	39-80	32-72	21-39	743-800

cross-pressure and many changed party because they disagreed with their usually preferred party on Norwegian EU policy. This situation may have created a subconscious wish among some voters to forget their former vote and show loyalty to their present political affiliation.

To explain why erroneous recall has not increased in a period with increasing changes in people's voting behaviour, we have to look into the extent of erroneous recall in different groups of voters. Table 1 shows that voters who voted for the same party at both elections are, as expected, much more correct in their recall of earlier voting than other voters. In this group all our explanatory perspectives point towards low erroneous recall. Their behaviour is consistent and therefore easy to remember, and they have fulfilled their duty as citizens. This group does not show any significant changes through the period, but erroneous recall is slightly higher towards the end.

Also voters who voted in the first of two consecutive elections but not in the second (present non-voters) are comparatively less inclined to recall erroneously. They have fulfilled their duty as citizens, and even though their behaviour is not consistent, it does not become more consistent through erroneous recall. Still, in this group the level of erroneous recall was stable at just above 20 percent in the first four periods, increasing to 35 percent in the last. The main explanation for the erroneous recall in this group is quite certainly bad memory. The memory perspective is, therefore, the most immediate explanation of the extent of erroneous recall both among stable voters and among present non-voters. The difference between the groups thus confirms that erroneous recall due to failing memory is more prevalent among politically uninvolved voters with sporadic participation in political life than among stable voters.

The memory perspective is certainly also important among stable non-voters who did not vote in either of the elections, in the sense that they have forgotten that they 'had no time to vote'. The citizen's duty perspective is,

however, also a probable explanation among these voters, and the more than 30 percent erroneous recall in this group indicates that some voters reported that they had voted even if they had not, from a feeling that they have an obligation to vote. In the last period the amount of erroneous recall in this group surprisingly doubled to nearly 70 percent. The most reasonable explanation is that this is an abnormal increase caused by uninvolved voters who confused the EU referendum in 1994 with the 1993 parliamentary election. Many voters who normally do not vote at general elections voted in the EU referendum, in which the turnout was almost 90 percent, compared to about 75 percent in the 1993 election.

The citizen's duty perspective is also important among previous non-voters who voted in the present election but not in the previous one, who may have a subconscious need to appear to be more regular voters than they actually are. The consistency perspective can, however, also explain this group's incorrect claim that they voted in the previous election. It is worth noticing that this group shows the highest level of erroneous recall and that the percentage reporting wrongly steadily increased from the first to the last election period in our study.

The party changers also have good reason to recall their previous voting erroneously. First, this group probably has the best reason to feel pressure to appear consistent in their relationship with the parties. Secondly, it is easy to forget earlier voting when it differs from one's present voting. Together, these two factors result in a rather high degree of erroneous recall. We note, however, that in this group the level of erroneous recall was higher at the beginning of our period than at the end. This trend is opposite to that of all the other groups, in which we find the highest erroneous recall towards the end of the period. Thus, the party changers are most accurate in their recall of earlier voting when their numbers are highest. We have analysed whether this may be due to a change in character of the party changers as a group, but no systematic tendencies support such an assumption. The explanation, then, may be that the need to act politically consistently decreases when it becomes more common to change one's party.

According to the consistency perspective, erroneous recall should take place in favour of the voters' present party choice. Table 2 shows that this was the case for about 70 percent of the erroneous recall of the party changers, but this tendency decreased somewhat towards the end of our period. For previous non-voters the results are unstable, but the average level is about the same. Thus, the results suggest that about two-thirds of the total extent of erroneous recall in these two groups can be ascribed to a conscious or subconscious wish of the voters to behave consistently in relation to the parties. For the party changers the remaining erroneous recall would then be due to failing memory, while previous non-voters are also influenced by their wish to fulfil their duties as citizens.

Table 2. Percentage of Voters Who Recall Their Vote in the Previous Election Erroneously to Match Their Voting in the Present Election

Percent error in favour of party chosen in the present election	1977-81	1981-85	1985-89	1989-93	1993-97
Party changers	68	75	75	65	62
Previous non-voters	57	87	61	77	68
<i>N</i>	38/28	48/30	63/39	69/26	74/60

The results presented in Table 2 show that there are three different levels of erroneous recall. The lowest level is found among the stable voters, and the highest among previous non-voters (in the last period also among the stable non-voters), while the other groups have an intermediate position. This gives us a rather consistent pattern (more so in the last period than in the previous ones). There is very little erroneous recall in the group to which none of our explanatory perspectives applies, more erroneous recall in the groups to which one or two of the perspectives apply, and most in the groups where erroneous recall should be expected according to all three explanatory perspectives. In other words, our data support the civic duty perspective in so far that we find the highest amount of erroneous recall among those voters who did not vote in the previous election.

We can therefore conclude that each of the three explanatory perspectives provides part of the explanation for erroneous recall:

- The consistency perspective is an important explanation for groups whose voting in the previous election is different from that in the present one.
- The citizens' duty perspective is important among voters who did not vote in the previous election.
- The memory perspective is of significance in all groups, but more so for unstable voters than for stable voters.

However, the results do not tell us anything about the relative significance of the three explanatory perspectives, which are obviously closely interwoven. Thus we can see that the memory perspective induces less erroneous recall among politically involved voters with clear-cut voting behaviour than among uninvolved voters who have a less orderly relationship with the parties.

The Importance of Intermediate Elections

The analysis above shows that changes in people's actual voting behaviour influence their recall of earlier voting. This means that people's voting in

Table 3. The Significance of Voting in the Intermediate Province Election. Percentage of Voters Who Recall Erroneously, by Type of Voters and Their Voting in the Intermediate Province Election

	1985-89	1989-93	1993-97	N
Stable voters				
Voted for same party in the province election	2	2	3	235-285
Voted for different party in the province election	15	20	17	31-42
Did not vote in the province election	10	23	13	40-71
Party changers				
Voted for same party in the province election and in the present election	55 (95)	53 (80)	61 (90)	33-47
Voted for different parties in the province election and in the present election	25	25	32	102-134

The figures in parentheses in the last part of the table indicate the percentage of this category of voters who report that they voted for the same party in the previous parliamentary election as they did in the intermediate province election.

municipal and province elections may interfere with recall of their voting in the previous parliamentary election. For the last three periods we also have data on people's voting in the province elections, gathered by mail survey immediately after the election, with a response rate of about 80 percent. In this analysis of the voting in province elections as a source of erroneous recall, we have to confine ourselves to stable voters and party changers, since there are too few respondents in the other groups.

The first part of Table 3 shows that stable voters who voted for the same party in the intermediate province election very seldom wrongly recall their voting in the previous parliamentary election. For people who voted for a different party or did not vote at all in the province election, erroneous recall is, however, considerably higher. Thus, somewhat surprisingly, deviations from people's normal voting behaviour will result in a higher level of erroneous recall, independently of whether they voted for another party or stayed at home. The sample does not allow for detailed analysis of the two groups, but the results support the memory perspective as an important explanation. Politically active and involved voters who remain with the same party for several consecutive elections remember their previous vote and are able to report it correctly on later occasions. Less stable voters, who from time to time abandon their usually preferred party, are normally less involved in politics, and apparently also less accurate in their recall of earlier voting.

Among the party changers the level of erroneous recall is more than 50 percent among those voters who voted for the same party in the province

election as in the present election, and more than 80 percent of them voted in favour of their choice of party in the province election. The level of erroneous recall among the party changers who voted for another party or stayed at home in the province election is, however, only half as high. This indicates that earlier voting is easily forgotten among all voters with an unstable relationship to their parties. An intermediate election obviously distorts people's recall of their earlier voting, and makes people's memory of their previous voting more problematic. The difference between the two groups of party changers shows, however, that party changers are more inclined to make erroneous recall when their voting is identical in the last two elections. This means that voters tend to recall the party they voted for in the last election in which they took part when this indicates that their behaviour is consistent.

This analysis clearly shows that recall data provide less reliable information on previous voting when the election in question is not the immediately preceding one. However, the exact significance of an intermediate election largely depends on the development in voting patterns in the period. The extent of disturbances in people's recall due to the intermediate elections will, on the one hand, increase with rising volatility in the electorate. It is, on the other hand, important when the changes between the parties take place. Large shifts in the electorate before the intermediate election will give a high level of erroneous recall, because this means a weak correlation between the two elections, causing confusion. On the contrary, major shifts in the electorate after the intermediate election give a low level of erroneous recall, because this means strong correlation between those two elections. This means, since the significance of the intermediate election is not the same for different groups of voters, that it is difficult to assess exactly which sources of error may arise when people confuse their vote in the previous parliamentary election with their vote in the intermediate province election.

Consequences

The rate of erroneous recall among Norwegian voters when asked about their voting in the previous parliamentary election in our period increased from just below 20 percent to nearly 30 percent, with the result from the last period being a somewhat deviating figure. Thus recall data give an incorrect image of people's voting in earlier elections, and we shall now evaluate what the consequences are for the conclusions we normally draw from such data.

From the first part of Table 4, which shows how erroneous recall is distributed among the groups of voters, we see that the party changers con-

Table 4. The Contribution of the Different Groups of Voters to the Total Erroneous Recall. Percentages

	1977-81	1981-85	1985-89	1989-93	1993-97
1. The contribution of different groups to total erroneous recall					
Stable voters	18	14	13	19	13
Party changers	41	44	47	47	47
Previous non-voters	28	26	27	17	29
Present non-voters	7	7	7	10	8
Stable non-voters	6	9	6	7	13
Total	100	100	100	100	100
N	99	114	152	156	204
2. The direction of erroneous recall					
A: Error in favour of stability	44	56	51	43	43
B: Error in favour of instability	18	14	13	19	13
C: Constantly unstable	38	30	36	38	44
Total	100	100	100	100	100
Net error in stabilizing direction (A - B)	26	42	38	24	30

tribute almost half of the total quantity of erroneous recall. This group is followed by previous non-voters, who contribute about one-quarter, and by stable voters, who add little less than one-fifth. There is, in other words, no direct interdependence between the contribution to the total level of erroneous recall from the different groups and the occurrence of erroneous recall within the groups. This is due to the difference in size between the groups. Stable voters give a rather high contribution to the overall level of erroneous recall even if only a few of them make erroneous recall, because they are numerous. In the same way, present non-voters and stable non-voters make only a small contribution to the erroneous recall even if they have a high level of erroneous recall, because there are few voters in each of these two groups.

The variations that can be discerned between the five election periods can be ascribed to two factors. On the one hand, the quantity of erroneous recall in the different groups varies considerably, as we have shown in Table 1, from one election period to the next. The extraordinarily high contribution to the total level of erroneous recall from stable non-voters in the last period can thus be explained by the fact that the rate of erroneous recall doubled in this group between the last two periods. On the other hand, the relative size of the groups varies between the five periods. This is an important explanation of the differences we find between the fourth period and the other periods with respect to previous non-voters and

present non-voters. There is a lower percentage of previous non-voters and a higher percentage of present non-voters in the 1989–93 sample than in the other samples.³ This means that previous non-voters have a lower weight in this sample than in the others, and that present non-voters have a higher weight.

Altogether, this shows that various patterns lie behind the overall level of erroneous recall in different elections. It is thus difficult to assess which processes are behind the erroneous recall in a given election without exact data of the kind we are using in this analysis, and it is hardly possible to solve the problems of using recall data by constructing a general correction model (Hellevik 1989). Any procedure intended to adjust the level of erroneous recall of which we are aware will necessarily involve a considerable element of subjective judgement. Differing routines of weighting, each with its own set of weaknesses, are therefore probably an important explanation of the discrepancies that are often found between the monthly party polls of different pollsters.

Erroneous recall of earlier voting influences the evaluation of the voters' shifts between the parties, because it gives inaccurate information about their party stability. Seen from this perspective, erroneous recall falls into three groups. The first is erroneous recall among stable voters. These voters express a party change even if their actual behaviour is stable, and contribute therefore to an artificial increase in the level of change among the voters. The second is erroneous recall in favour of the presently preferred party among the party changers and previous non-voters. These voters express stability even if they actually have changed their voting behaviour, and contribute therefore to an artificially low level of party changing. The third is erroneous recall that does not favour the presently preferred party among the party changers and previous non-voters. These voters do not influence the quantity of changes between the parties because they express the volatile attitudes they actually have towards the parties. The last part of Table 4 shows that the distribution among the three groups varied somewhat from period to period. Generally, though, between 30 and 40 percent of erroneous recall does not affect the apparent stability of the voters, whereas erroneous recall in favour of stability is considerably higher than that in favour of instability.

Thus, recall data create an impression of more stability in the electorate than is actually the case. Party polls, which use adjustment procedures based on recall data, will therefore show too little support for parties that are growing in popularity, and too much support for parties in decline. The last row of Table 4 shows that the size of this misjudgement varies between 25 and 40 percent. This means that when the total amount of erroneous recall is above 20 percent, as in Norway today, recall data will overestimate the stability of the electorate by 5–8 percent. The great variation in the type

of erroneous recall between the election periods means therefore that it is difficult to make a general assessment of the significance of the errors connected to the use of recall data. To estimate how recall data influence the prediction of the voters' shifts between the parties it is necessary to know the accuracy of the data for a given period.

Conclusions

In the election periods covered by our surveys, the voters' erroneous recall of their previous voting was about 20 percent, except for the last period, in which the level increased to nearly 30 percent. This means that, using this type of data, one must expect that about one in four voters gives incorrect information about his or her voting behaviour at the previous election. If this type of information is gathered between two parliamentary elections, the aggregate accuracy of the data should be greatest just after the first election and deteriorate thereafter. However, any type of recall data will result in a certain level of erroneous recall due to people lacking the ability or the will to recall their previous voting correctly, and such data therefore cannot fully replace panel data.

Erroneous recall of previous voting essentially finds its explanation in variations in the voters' affiliation to the parties. While stable voters who remain with the same party normally report their voting correctly, erroneous recall varies around 40 percent for voters who change their party between the elections in question, and rises to 70 percent among previous non-voters. This main tendency is valid for all election periods in the study, but there are also differences of consequence for the structure of the total erroneous recall. On the one hand, within some groups of voters there is up to ten percentage points variation between the periods in the proportion that recalls erroneously. On the other hand, the relative size of the voter groups varies considerably and thus also their contribution to the total erroneous recall.

In other words, there is no uniform underlying pattern in erroneous recall during different periods. This implies that it is difficult to predict how erroneous recall will affect the accuracy of recall data, and how to make effective adjustment for erroneous recall, which we know is inherent in such data. Seen against this background it is not surprising that results of party polls that apply different adjustment procedures built on recall data will to some extent deviate from the actual election results. In general, therefore, there may be good reason to rely less on results from single polls and more on average results from several polls.

Erroneous recall of previous voting may be related to three different circumstances: a conscious or subconscious wish to appear to be consistent in

one's voting behaviour, a lack of ability to remember how one voted in the previous elections, and a basic belief in the importance of participation in elections. With our data, it is impossible to estimate the relative significance of these factors, but clearly the significance varies with people's voting patterns. The consistency perspective is prevalent among voters who for some reason or other want to appear to be more stable in their relations to the parties than they actually are, while the citizens' duty perspective applies to voters who wish to conceal the fact that they do not always cast a ballot. The memory perspective is important in all groups of voters, even if failing memory especially affects unstable voters who are more liable to forget how they actually voted in the previous election. Thus there is a clear interaction between the different explanatory perspectives, and the probability of erroneous recall of previous voting increases if several of these perspectives are in force.

In the election periods we have studied there was a considerable increase in the voters' shifts between the parties. Erroneous recall has, however, not increased at the same pace, even if the increase in the last period is an exception. The main reason is that erroneous recall among the party changers showed a steadily decreasing curve during these years until the last period. According to our data, this tendency cannot be ascribed to special changes in the characteristics of the party changers. Therefore, it has seemingly become more acceptable to change one's party than formerly, and along with this the underlying motive to appear to be consistent in one's relationship to the parties has become less important.

Social scientists have become increasingly concerned with the analysis of change over time (Ostrom 1978, 5). Thus, diachronic data are pivotal for many researchers. Unfortunately, however, longitudinal data are difficult to obtain, not least because the object of study may not have attracted the attention of previous generations of scholars. If we want to persist in studying simultaneous change in multiple variables, the use of recall questions on previous behaviour or attitudes seems to be the only way out. Apparently this gives us the advantage of time series data, with the extra bonus of lower cost compared with panels. But, does the use of recall questions really make up for the drawback of not having real time series?

Our results, showing that a lot of people make erroneous recall of their previous voting behaviour, are obviously valid not only for this particular kind of behaviour. All human recollection of previous behaviour is questionable in so far as we can never trust its validity completely. There will always be some lack of ability to remember, or of interest in remembering, previous behaviour accurately. Although we have addressed the implications of using recall data for opinion polls, the problems are as consequential for other fields of social and political research. Electoral research in which information on previous voting is based upon recall questions is

particularly vulnerable to errors of this kind. However, any type of information based on recollection of former behaviour and attitudes should be treated with utmost care. More methodological research on the accuracy of recall data of different kinds is, therefore, needed before we can be sure that such data give us valid information.

NOTES

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2. The extent of erroneous recall in this period is measured in the same way as in the present study, and the numbers of parties are the same. This means that the results are comparable.
3. About 5 percent previous non-voters in the 1989–93 sample compared with 8–10 percent in the other samples, and about 10 percent present non-voters compared with about 6 percent.

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